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J. McE. AMES.

CAR TRUCK BOLSTER.

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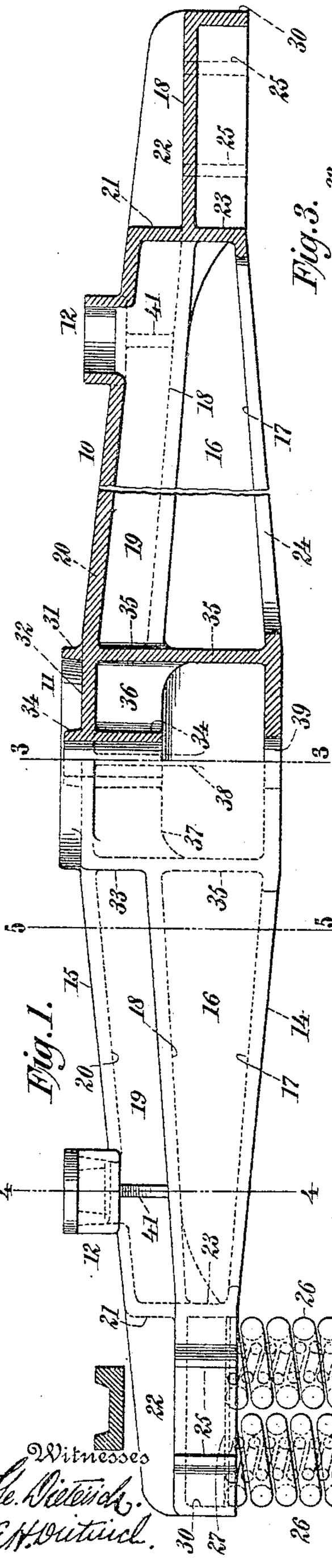

Fig. 1.

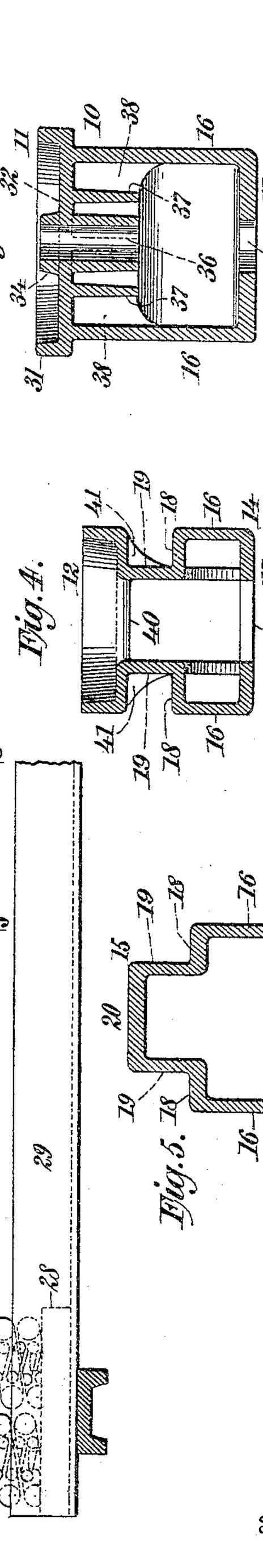

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

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CAR-TRUCK BOLSTER.

No. 795,262. Specification of Letters Patent. Patented July 25, 1905.

Application filed April 12, 1905. Serial No. 255,094.

To all whom it may concern:

Be it known that I, JOHN McE. AMES, a citizen of the United States, and a resident of New Brighton, in the county of Richmond and State of New York, have invented certain new and useful Improvements in Car-Truck Bolsters, of which the following is a specification.

The invention relates to improvements in car-truck bolsters; and it consists in the novel features and combinations of parts hereinafter described, and particularly pointed out in the claims.

The object of the invention is to produce an integral cast bolster of novel formation and which shall be efficient and convenient of use and have its parts so disposed as to secure the maximum of strength with the minimum weight and enable the casting of the bolster with the least possible labor, difficulty, and expense.

The invention will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation, partly broken away and partly in section, of a car-truck bolster constructed in accordance with and embodying the invention, one longitudinal half of the bolster being shown in central vertical section on the dotted line 1 1 of Fig. 2. Fig. 2 is a top view of same. Fig. 3 is a central vertical transverse section of same on the dotted line 3 3 of Fig. 1. Fig. 4 is a vertical transverse section of same on the dotted line 4 4 of Fig. 1, and Fig. 5 is a like section of same on the dotted line 5 5 of Fig. 1.

In the drawings, 10 designates the bolster as a whole, and said bolster will preferably be in one integral hollow casting and equipped with the center bearing 11 and suitable receptacles 12 for appropriate side bearings or rub-irons.

The bolster 10 is substantially uniform in width, horizontally considered, from end to end and in depth gradually lessens from its center toward its end portions, the upper and lower surfaces of the bolster converging from the center toward the ends thereof.

The bolster may be considered as formed of two longitudinal divisions 14 15, the former representing the lower and wider or body portion and the latter an upper narrower and shorter portion disposed centrally of the portion 14. The portion 14 comprises the plain sides 16, bottom 17, and top walls 18, the latter extending inwardly from the sides 16 to the upper portion 15, which comprises the vertical sides 19 and top wall 20 and terminates at the vertical end walls 21 adjacent to each end of the bolster. From the vertical end walls 21 longitudinal vertical web-flanges 22 extend upon the lower division of the bolster and to the extreme ends thereof, these flanges being in line with the sides 19 of the upper division 15. The end walls 21 are integral with and connect the sides 19 and flanges 22, and directly below the walls 21 and integral therewith are transverse vertical webs 23, Fig. 1, integral with and connecting the sides 16, top 18, and bottom 17. The bottom 17 has formed in it intermediate its central portion and ends the elongated openings 24.

On the vertical sides of each end portion of the bolster are formed usual vertical ribs 25 for contact with the usual columns of car-trucks to limit the lateral thrust of the bolster and to guide the bolster in its vertical movements when said bolster is supported at its ends upon the usual springs 26. In the lower portion of each end of the bolster is formed a commodious rectangular recess to receive a wooden block 27, which affords a bearing for the upper ends of the springs 26, whose lower ends may be supported upon a similar block 28, located upon a channel or sand-plank 29. The recesses for the wooden blocks 27 are formed below the top 18 and between the sides 16, webs 23, and vertical ends 30, as shown at the right-hand end of Fig. 1, and the ends of the bolster about said recesses are somewhat wider than the other portions thereof, as shown in Fig. 2.

At the central portion of the bolster is a novel box-like formation upon whose upper surface is the circular vertical flange 31, defining the center bearing, and which box-like structure is as wide as the lower division of the bolster and extends upwardly to the upper surface of the upper division thereof and exteriorly comprises the sides 16, top wall 32, and end walls 33, which join the sides 16 with the sides 19 of the upper division of the bolster. At the center of the circle defined by the flange 31 is provided the integral sleeve 34 for the usual king-bolt, this sleeve projecting slightly above and materially below the top wall 32, the lower end of said sleeve terminating at about the level of the top 18 of the lower division of the bolster, as shown in Fig. 1.

Within the box-like structure at the center of the bolster are end walls 35, whose lower ends unite with the bottom 17 and whose side edges connect the sides 16 and also the sides 19, and which end walls are integral with the top walls 18 and 20 and in line with the exterior corner-walls 33, and within said box-like structure longitudinal webs 36 connect the sleeve 34 with said end walls 35 and longitudinal webs 37 at opposite sides of said sleeve connect said end walls 35. The sleeve 34 is connected by transverse webs 38 with the webs 37 and sides 16, said webs 38, 37, and 36 all terminating at their lower edges at about the level of the lower end of the sleeve 34 and top wall 18. Directly below the sleeve 34 the bottom 17 is formed with an opening 39.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. As a new article of manufacture, the integral hollow cast bolster comprising the lower body division and upper narrower division, said bolster affording the center bearing and seats for side bearings and converging, vertically considered, from its center toward its ends; substantially as set forth.

2. As a new article of manufacture, the integral hollow cast bolster comprising the lower body division and upper narrower division and having at its center a box-like formation extending to the top of said upper division and affording the center bearing and sleeve for the king-bolt; substantially as set forth.

3. As a new article of manufacture, the integral hollow cast bolster comprising the lower body division and upper narrower division which is shorter than said body division and terminates in end walls, whence longitudinal flanges extend to the ends of said body division, said bolster affording the center bearing and seats for side bearings and converging, vertically considered, from its center toward its ends; substantially as set forth.

4. As a new article of manufacture, the integral hollow cast bolster comprising the lower body division and upper narrower division and having at its center a box-like formation extending to the top of said upper division and affording the center bearing and sleeve for the king-bolt, the ends of the bolster at their lower sides being formed with the recesses to receive bearing-blocks for the springs; substantially as set forth.

5. As a new article of manufacture, the integral hollow cast bolster comprising the lower body division and upper narrower division and having at its center a box-like formation extending to the top of said upper division and affording the center bearing and sleeve for the king-bolt, said bolster having adjacent to its end portions the side bearing-receptacles which are elongated transversely and extend across and beyond the top of said upper division and are supported at their ends by webs; substantially as set forth.

6. As a new article of manufacture, the integral hollow cast bolster comprising the lower body division and upper narrower division and having at its center a box-like formation extending to the top of said upper division and affording the center bearing and sleeve for the king-bolt, the ends of the bolster at their lower sides having the recesses to receive bearing-blocks for the springs, and said bolster having adjacent to its end portions the side bearing-receptacles which are elongated transversely and extend across the top of said upper division; substantially as set forth.

7. As a new article of manufacture, the integral hollow cast bolster comprising the lower body division and upper narrower division and having at its center a box-like formation extending to the top of said upper division and affording the center bearing and sleeve for the king-bolt, said sleeve extending below the top of said box and being connected with the walls thereof by webs extending downwardly to about the top of said body division; substantially as set forth.

8. As a new article of manufacture, the integral hollow cast bolster comprising the lower body division and upper narrower division and having at its center a box-like formation extending to the top of said upper division and affording the center bearing and sleeve for the king-bolt, said box comprising exteriorly the top, sides and corner-walls and interiorly the end walls extending from the bottom to the top of the bolster and webs connecting said sleeve and walls; substantially as set forth.

Signed at New York city, in the county of New York and State of New York, this 10th day of April, A. D. 1905.

JOHN McE. AMES.

Witnesses:
B. A. Hegeman, Jr.,
Charles C. Gill.